



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

Dirk Kempthorne, Governor
Toni Hardesty, Director

January 9, 2006

Certified Mail No. 7005 1160 0000 1550 0559

Dennis Drake
General Manager
Renewable Energy of Idaho
49 Hanson Dr.
Horseshoe Bend, ID 83629

RE: Facility ID No. 045-00006, Renewable Energy of Idaho, Emmett
Final Permit to Construct

Dear Mr. Drake:

The Idaho Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) Number P-050019 to Renewable Energy of Idaho for a new woodwaste-fired boiler, sawmill, planer mill, and dry kilns. This permit is issued in accordance with IDAPA 58.01.01.200 through 228, Rules for the Control of Air Pollution in Idaho, and is effective immediately.

This permit does not release Renewable Energy of Idaho, from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

A representative of DEQ's Boise Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. In addition to your facility's plant manager, DEQ recommends the following representatives attend the meeting: your responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with the permit conditions.

In accordance with IDAPA 58.01.01.313.01.e.iii, Renewable Energy of Idaho is required to submit a complete application to DEQ for an original Tier I operating permit within 12 months of commencing operation.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Bill Rogers at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Martin Bauer, Administrator
Air Quality Division

MB/HE/sd

Permit No. P-050019

Enclosures



**Air Quality
PERMIT TO CONSTRUCT**

**State of Idaho
Department of Environmental Quality**

PERMIT No.: P-050019

FACILITY ID No.: 045-00006

AQCR: 63

CLASS: A

SIC: 4961

ZONE: 11

UTM COORDINATE (km): 539.0, 4857.9

1. PERMITTEE

Renewable Energy of Idaho

2. PROJECT

Initial Permit to Construct

3. MAILING ADDRESS

49 Hanson Dr.

CITY

Horseshoe Bend

STATE

ID

ZIP

83629

4. FACILITY CONTACT

Dennis Drake

TITLE

General Manager

TELEPHONE

(208) 861-9830

5. RESPONSIBLE OFFICIAL

Dennis Drake

TITLE

General Manager

TELEPHONE

(208) 861-9830

6. EXACT PLANT LOCATION

500 West Main, Emmett, Idaho

COUNTY

Gem

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Power Generating Facility from a Woodwaste-Fired Boiler and/Wood Products – Lumber

8. PERMIT AUTHORITY

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.


TON HARDESTY, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: January 9, 2006

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Acronyms, Units, and Chemical Nomenclature

| | |
|------------------------|---|
| AQCR | Air Quality Control Region |
| Btu | British thermal unit |
| CFR | Code of Federal Regulations |
| CO | carbon monoxide |
| CEMS | Continuous Emissions Monitoring System |
| COM | Continuous Opacity Monitoring |
| DEQ | Department of Environmental Quality |
| EPA | U.S. Environmental Protection Agency |
| ESP | Electrostatic Precipitator |
| gr/dscf | grain (1 lb = 7,000 grains) per dry standard cubic foot |
| IDAPA | a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act |
| km | kilometer |
| lb/hr | pound per hour |
| MW | megawatt |
| MMBtu/hr | million British thermal units per hour |
| NO_x | oxides of nitrogen |
| NSPS | New Source Performance Standards |
| O&M | Operations and Maintenance |
| PM | particulate matter |
| PM₁₀ | particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers |
| PTC | permit to construct |
| ROFA | Rotating Opposed Fired Air |
| SNCR | Selective Non-Catalytic Reduction |
| SO₂ | sulfur dioxide |
| SIC | Standard Industrial Classification |
| T/R | transformer/rectifier |
| T/yr | tons per year |
| UTM | Universal Transverse Mercator |
| VOC | volatile organic compound |

AIR QUALITY PERMIT TO CONSTRUCT No.: P-050019

| | | | | |
|-------------------|---------------------------|-----------------------------------|---------------------|-----------------|
| Permittee: | Renewable Energy of Idaho | Facility ID No.: 045-00006 | Date Issued: | January 9, 2006 |
| Location: | 500 West Main, Emmett | | | |

1. PERMIT SCOPE

Purpose

- 1.1 This Permit to Construct (PTC) allows for the construction of a new woodwaste-fired boiler with a rated heat input capacity of 280 million British thermal units per hour (MMBtu/hr), a sawmill, a planer mill, two dry kilns, two woodwaste shaving silos, a cooling tower, and fugitive dust sources.
- 1.2 This PTC is the facility's initial air quality permit.

Regulated Sources

- 1.3 Table 1.1 lists all sources of regulated emissions in this permit.

Table 1.1 SUMMARY OF REGULATED SOURCES

| Permit Section | Source Description | Emissions Control(s) |
|----------------|--|--|
| 2 | <p><u>Woodwaste-fired stocker boiler</u> Manufacturer: Zurn Year manufactured: 1986 Type: Spreader stoker Rated heat input capacity: 280 MMBtu/hr Rated steam rate: 177,000 pounds per hour Maximum hourly woodwaste input rate: 17.75 tons Maximum annual woodwaste input rate: 155,490 tons Fuel value: 8,613 Btu per dry pound.</p> | <p><u>Electrostatic precipitator (ESP)</u> Manufacturer: National Energy Production Company Model No.: Not available Number of T/R sets: three at 500 milliamper Air flow rate: 119,892 acfm at 324 °F Particulate matter removal efficiency: 98.8%</p> <p><u>SNCR system:</u> The SNCR system is a selective non-catalytic reduction which uses urea that can be mixed with dilution water to reduce and maintain emissions of oxides of nitrogen (NO_x) at the permitted levels. The urea and dilution water are mixed on a control rack, with individual flow control, and delivered through a lance into the boiler. Humidification water is delivered around the lance to help carry the urea further into the boiler</p> <p>The SNCR system in combination with ROFA (see below) offers a combination of time, temperature, and turbulent mixing to maximize NO_x and CO reduction.</p> <p><u>ROFA system</u> The ROFA is a rotating opposed fire air which is used to reduce NO_x and CO emissions. The ROFA boxes are placed along the boiler walls to optimize combustion and to reduce the NO_x and CO emissions. The rotational air flow created by the ROFA system allows for combustion in the upper region of the boiler. This will increase the turbulent mixing and bulk rotation in the entire boiler. The ROFA system is tuned and optimized by using the NO_x and CO readings from the plant CEMS. The enhanced mixing provided by ROFA further increases the performance of the SNCR system. After tuning ROFA, the SNCR system is optimized using a temporary ammonia slip meter and the plant NO_x CEMS. The SNCR system is tuned to optimize NO_x reduction while minimizing ammonia slip. Once the system is optimized, SNCR control system automatically controls the unit to the optimized levels. Manufacturer: Mobotec USA Model No.: Not available</p> |

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| Permit Section | Source Description | Emissions Control(s) |
|-----------------------|---|---|
| 3 | <u>Dry kilns (2)</u> Manufacturer: Wellons Two identical double-track kilns with computerize controls. Each kiln has six vents | PM and VOC emissions from the dry kilns are uncontrolled. |
| 4 | <u>Shaving storage silos</u> Two 40-foot height shaving storage silos. | PM emissions from the shaving storage silos are controlled by two cyclones. |
| 5 | <u>Cooling tower (2-cell)</u> Non-contact cooling tower with a water flow of 16,800 gallons per minute. | Emissions from the cooling tower are uncontrolled |
| 6 | <u>Fugitive dust sources</u> These include the debarker, sawmill, planer mill, hog, screens, boiler fuel transfer points, woodwaste storage pile, trucks driving on paved and unpaved roads, woodwaste truck unloading, ash handling, etc. | Reasonable control of fugitive dust |

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2. WOODWASTE-FIRED STOKER BOILER

2.1 Process Description

The new Zurn stoker boiler with a rated heat input capacity of 280 MMBtu/hr will be fired by woodwaste fuel to produce steam. The steam generated from the boiler will be used to operate one steam turbine generator for the purpose of generating electricity that is equal to 18 megawatt power output. Additionally, part of the steam produced from the boiler will be used to operate a milling operations (debarker, sawmill, planer mill, dry kilns, hog, screens, shaving silos, and cooling tower) at the site. The woodwaste fuel which is fed to the boiler is generated from the associated sawmill and planer mill at the site and it is also brought to the facility from other sources in the local area. A natural gas burner rated at one million Btu per hour will be used to preheat the boiler prior to burning woodwaste. Operation on woodwaste is expected to be approximately 24 hours per day and 339 days per year. Operation on natural gas is expected to be 25 hours per year.

The boiler is subject to the federal New Source Performance Standards (NSPS), Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

2.2 Emission Control Description

The PM and PM₁₀ emissions from the boiler are controlled by an electrostatic precipitator (ESP). Oxides of nitrogen emissions are controlled by SNCR and ROFA. The carbon monoxide emissions are controlled by ROFA.

Table 2.1 WOODWASTE-FIRED STOKER BOILER DESCRIPTION

| Emissions Unit(s) / Process(es) | Emissions Control Device |
|---------------------------------|--------------------------|
| Woodwaste-fired stoker boiler | ESP, SNCR, ROFA |

Emission Limits

2.3 PM₁₀, CO, NO_x

Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometer (PM₁₀), carbon monoxide (CO), and oxides of nitrogen (NO_x) emissions from the stoker boiler stack shall not exceed any corresponding emissions rate limits listed in Table 2.2.

Table 2.2 EMISSIONS LIMITS FROM THE WOODWASTE STOKER BOILER STACK

| Source | PM ₁₀ ^a | | CO ^b | | NO _x ^c | |
|---------------------|-------------------------------|-------------------|-----------------|------|------------------------------|-------|
| | lb/hr ^e | T/yr ^f | lb/hr | T/yr | lb/hr | T/yr |
| Stoker boiler stack | 3.0 | 12.3 | 21.6 | 87.6 | 42.1 | 171.1 |

^a particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometer

^b carbon monoxide

^c oxides of nitrogen

^e pounds per hour

^f tons per consecutive 12-month period

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2.4 Ammonia (NH₃) Slip

- Ammonia emissions from the stoker boiler stack shall not exceed 4.12 lb/hr.
- Ammonia emissions from the stoker boiler stack shall not exceed 16.77 tons per any consecutive 12-month period (T/yr).

2.5 Particulate Emission Limit in Accordance with 40 CFR 60.43b(c)(1)

Particulate emissions from the boiler shall not exceed 0.1 pounds per million Btu of heat input in accordance with 40 CFR 60.43b (c) (1). Compliance shall be determined by a performance test as specified in 40 CFR 60.8.

2.6 Fuel-Burning Equipment

The permittee shall not discharge to the atmosphere from any fuel-burning equipment particulate matter in excess of 0.08 grain per dry standard cubic foot (gr/dscf) of effluent gas corrected to 8% oxygen by volume for wood products, in accordance with IDAPA 58.01.01.676.

2.7 Opacity Limits

On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8, whichever date comes first, the boiler shall not discharge into the atmosphere any gases that exhibit greater than 20% opacity (six-minute average), except for one six-minute period per hour of not more than 27% opacity, in accordance with 40 CFR 60.43b (f).

The particulate matter and opacity standards apply at all times, except during periods of startup, shutdown or malfunction in accordance with 40 CFR 60.43b (g).

2.8 Visible Emissions Limit

The permittee shall not discharge any air pollutant into the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, NO_x, and/or chlorine gas is the only reason for failure of the emission to comply with the requirements of this section.

2.9 Excess Emissions

The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

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Operating Requirements

2.10 Fuel Type

- The boiler shall be fired exclusively with wood products.
- Only natural gas fuel shall be used during the start-up of the boiler.

2.11 Hours of Operation Limits

- The operation of the stoker boiler on woodwaste shall not exceed a maximum of 8,146 hours per any consecutive 12-month period.
- The operation of the stoker boiler on natural gas shall not exceed 25 hours per any consecutive 12-month period.

2.12 Control Device Requirements

- 2.12.1 An ESP shall be used to control PM and PM₁₀ and opacity emissions from the boiler. The ESP shall be maintained in good working order and operated as efficiently as practical in accordance with the Operations and Maintenance (O&M) manual specifications required by Permit Condition 2.24.
- 2.12.2 The permittee shall install, calibrate, maintain, and operate, in accordance with the O&M manual specifications, equipment to continuously measure the secondary voltage and amperage applied by each transformer/rectifier (T/R) set to the discharge electrodes while the boiler is operating.
- 2.12.3 The power applied by each T/R set to the discharge electrodes on the ESP shall be maintained within O&M manual specifications. Documentation of O&M manual power input specifications shall remain on site at all times and shall be made available to DEQ representatives upon request.
- 2.12.4 A SNCR and ROFA systems shall be used to control NO_x and CO emissions from the boiler. The SNCR and ROFA shall be maintained in good working order and operated as efficiently as practical in accordance with the Operations and Maintenance (O&M) manual specifications required by Permit Condition 2.24.
- 2.12.5 The permittee shall install, calibrate, maintain, and operate a SNCR and a ROFA systems, in accordance with the manufacturer specifications.

2.13 Continuous Opacity Monitoring System

- 2.13.1 The permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring (COM) system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system in accordance with 40 CFR 60.48b (a).
- 2.13.2 The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring system in accordance with 40 CFR 60.48b (e).

2.14 Continuous Emissions Monitoring System for NO_x

- 2.14.1 The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring NO_x emissions discharged to the atmosphere and record the output of the system. The NO_x CEMS shall be used for tuning the SNCR system, as requested by the permittee.

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- 2.14.2 The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring system. The NO_x CEMS shall be used to determine compliance with NO_x emissions limits.
- 2.14.3 The CEMS data shall be reduced and recorded in such a manner that compliance with all applicable NO_x emissions limits can be demonstrated.

2.15 Continuous Emissions Monitoring System for CO

- 2.15.1 The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring the CO emissions discharged to the atmosphere and record the output of the system. The CO CEMS shall be used for tuning the ROFA system, as requested by the permittee.
- 2.15.2 The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring system. The CO CEMS shall be used to determine compliance with CO emissions limits.
- 2.15.3 The CEMS data shall be reduced and recorded in such a manner that compliance with all applicable CO emissions limits can be demonstrated.

Monitoring and Recordkeeping Requirements

2.16 Visible Emissions Monitoring

The permittee shall conduct a monthly inspection of visible emissions from the ESP stack during daylight hours and under normal operating conditions. The inspection shall consist of a see/no see evaluation of visible emissions. If any visible emissions are present from the ESP stack, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

Records of this information shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

2.17 Fuel Monitoring and Recordkeeping Requirements

- 2.17.1 The permittee shall monitor and record the amount of fuel combusted during each day, each month, and for the most recent 12-month period in accordance with 40 CFR 60.49b (d).
- 2.17.2 The permittee shall calculate, using the records of the daily amount of fuel combusted, the annual capacity factor for wood for the reporting period in accordance with 40 CFR 60.49b (d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

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2.18 Opacity Recordkeeping in Accordance with 40 CFR 60.49b (f)

The permittee shall maintain records of opacity in accordance with 40 CFR 60.49b (f).

2.19 PM Performance Test

- 2.19.1 Within 60 days after achieving the maximum production rate at which the boiler will be operated, but not later than 180 days after initial startup of the boiler and at such other times as may be required by the Environmental Protection Agency (EPA) under section 114 of the Act, the permittee shall conduct performance test(s) and furnish the EPA a written report of the results of such performance test(s) in accordance with 40 CFR 60.8. The permittee shall also provide a copy of the results of any testing done per this permit condition to DEQ in accordance with Permit Condition 2.27.

The performance testing is to determine compliance with particulate matter emissions limits and opacity in Permit Conditions 2.5 and 2.7.

- 2.19.2 The permittee shall conduct a particulate matter performance test in accordance with General Provision 6. The performance test shall be conducted within six months of initial startup of the boiler to demonstrate compliance with Permit Conditions 2.6 and 2.8.
- 2.19.3 After the initial performance test, future testing shall be performed according to the following schedule. If the PM emission rate measured in the most recent test is less than or equal to 75% of the emission standard in Permit Condition 2.6, the next test shall be conducted within five years of the test date. If the PM emission rate measured during the most recent performance test is greater than 75%, but less than or equal to 90%, of the emission standard in Permit Condition 2.6, the next test shall be conducted within two years of the test date. If the PM emission rate measured during the most recent performance test is greater than 90% of the emission standard in Permit Condition 2.6, the next test shall be conducted within one year of the test date. Subsequent source testing shall be conducted based on these criteria for the duration of the permit term.
- 2.19.4 The permittee shall monitor and record the following information during each performance test:
- Visible emissions, using the methods and procedures contained in IDAPA 58.01.01.625
 - Power input to the ESP (the sum of the secondary voltage times secondary current for both transformer-rectifier (T/R) sets, or $P = V_1 I_1 + V_2 I_2$)

2.20 CO Performance Test

The permittee shall conduct a performance test to measure CO emissions from the boiler within 180 days of commencement of operation of the boiler. The performance testing will be conducted to demonstrate compliance with the emission rate limit listed in Permit Condition 2.3.

The performance test shall be performed in accordance with IDAPA 58.01.01.157 and General Provision 6 of this permit. The ROFA system shall be operating during the performance test. In addition, the amount of woodwaste combusted in the boiler shall be recorded during the performance test.

2.21 NO_x Performance Test

The permittee shall conduct a performance test to measure NO_x emissions from the boiler within 180 days of commencement of operation of the boiler. The performance testing will be conducted to demonstrate compliance with the emission rate limit listed in Permit Condition 2.3.

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The performance test shall be performed in accordance with IDAPA 58.01.01.157 and General Provision 6 of this permit. The SNCR and ROFA systems shall be operating during the performance test. In addition, the urea, dilution water, and humidification water flow rates to the SNCR system and the amount of woodwaste combusted in the boiler shall be recorded during the performance test.

2.22 NH₃ Performance Test

The permittee shall conduct a performance test to measure NH₃ emissions from the boiler within 180 days of commencement of operation of the boiler. The performance testing will be conducted to demonstrate compliance with the emission rate limit listed in Permit Condition 2.4.

The performance test shall be performed in accordance with IDAPA 58.01.01.157 and General Provision 6 of this permit. The SNCR and ROFA systems shall be operating during the performance test. In addition, the urea, dilution water, and humidification water flow rates to the SNCR system and the amount of woodwaste combusted in the boiler shall be recorded during the performance test.

2.23 Secondary Voltage and Amperage Monitoring Requirements

When the boiler is operating, the permittee shall monitor and record on an hourly basis the secondary voltage and amperage applied by each T/R set to the discharge electrodes. The voltage and amperage recorded shall be consistent with O&M manual units of measure. A compilation of the most recent two years of voltage and amperage records shall be kept on site and shall be made available to DEQ representatives upon request.

2.24 Operations and Maintenance Manual Requirements

Operation and Maintenance manuals shall be developed for the ESP, SNCR, and ROFA within 60 days of operation of the boiler. The permittee shall have developed an O&M manual for the ESP, SNCR, and ROFA according to manufacturer specifications and recommendations. This manual shall describe the methods and procedures that will be followed to assure the ESP, SNCR, and ROFA are maintained in good working order and operated as efficiently as practical. The O&M manuals shall be updated as necessary and shall include, at a minimum, the most recent general descriptions of the equipment; the normal operating conditions and procedures for the equipment; startup, shutdown, and maintenance procedures; upset conditions guidelines; and corrective action procedures.

2.25 Hours of Operation Monitoring

- The permittee shall monitor and record the hours of operation the stoker boiler operates on woodwaste in hours per month and hours per any consecutive 12-month period.
- The permittee shall monitor and record the hours of operation the stoker boiler operates on natural gas in hours per month and hours per any consecutive 12-month period.

Records of this information shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

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Reporting Requirements**2.26 Performance Test Protocol**

The permittee is strongly encouraged to submit a compliance test protocol for approval at least 30 days prior to conducting any compliance test required by Permit Conditions 2.19, 2.20, 2.21, and 2.22. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the test does not satisfy the testing requirements.

2.27 Performance Test Report

The permittee shall submit a report of the results of any performance tests required in Permit Conditions 2.19, 2.20, 2.21, and 2.22 including all required process data, to DEQ within 30 days after the date on which any required compliance test is concluded, in accordance with IDAPA 58.01.01.157 and with the General Provision 8. Any reporting required by this permit shall be submitted to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706-2239
Phone: (208) 373-0550 Fax: (208) 373-0287

2.28 NSPS Notification Requirements

- 2.28.1 The permittee shall submit to EPA a notification of the date of initial startup, as provided by 40 CFR 60.7, in accordance with 40 CFR 60.49b.
- 2.28.2 The permittee shall submit to EPA excess emission reports for any excess emissions which occurred during the reporting period, in accordance with 40 CFR 60.49b(h).
- 2.28.3 The permittee shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using applicable performance specifications in Appendix B, in accordance with 40 CFR 60.49b(b).

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3. DRY KILNS (2)**3.1 Process Description**

Two identical Wellons double track dry kilns with computerized steam controls are used to dry green lumber. The kilns are indirectly heated by using steam which is supplied by the woodwaste-fired boiler. The steam is supplied to heating coils within the kilns which transfer heat to the stacked lumber to drive off the desired amount of moisture. Fans inside the kilns circulate the heated air inside the kilns, and vents in the roof of each kiln are opened and closed to maintain the desired conditions within the kiln. Each kiln will operate two 8-hour shifts.

3.2 Emission Control Description

The emissions from the kilns are uncontrolled. Table 3.1 lists the emissions unit(s) and the emissions control device

Table 3.1 LUMBER DRYING KILNS DESCRIPTION

| Emissions Unit(s) / Process(es) | Emissions Control Device |
|--|---------------------------------|
| Two Wellons Double-Track Kilns | None |

Emission Limits**3.3 Visible Emissions Limit**

Emissions from the drying kilns, or any other stack, vent, or functionally equivalent opening associated with the drying kilns, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625, unless otherwise specified.

Operating Requirements**3.4 Throughput Limits**

The throughput of lumber for the drying kilns shall not exceed 36.8 million board feet during any consecutive 12-month period.

Monitoring and Recordkeeping Requirements**3.5 Monitoring Requirement**

Each month, the permittee shall monitor and record the throughput of lumber for the drying kilns in units of million board feet for that month and for the most recent 12-month period. Annual throughput shall be determined by summing monthly throughput over the previous consecutive 12-month period. A compilation of the most recent two years of records shall be kept on site and shall be made available to DEQ representatives upon request.

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4. SHAVING STORAGE SILOS

4.1 Process Description

A pneumatic system will be used to transport planer shavings to two cyclones atop 40-foot shavings storage silos. There will be a total of two cyclones and two shaving storage silos.

4.2 Emission Control Description

Emissions from the shaving silos are controlled by two cyclones.

Emission Limits

4.3 Visible Emissions Limit

Emissions from the shaving silo stacks, or any other stack, vent, or functionally equivalent opening associated with the shaving silo cyclones, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625, unless otherwise specified.

Monitoring and Recordkeeping Requirements

4.4 Visible Emissions Monitoring

The permittee shall conduct a monthly inspection of visible emissions from the shaving silo stacks during daylight hours and under normal operating conditions. The inspection shall consist of a see/no see evaluation of visible emissions. If any visible emissions are present from the stacks, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

Records of this information shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

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4.5 Operations and Maintenance Manual Requirements

Operation and Maintenance manuals shall be developed for the shaving silo cyclones within 60 days of operation of the silos. The permittee shall have developed an O&M manual for the cyclones according to manufacturer specifications and recommendations. This manual shall describe the methods and procedures that will be followed to assure the cyclones are maintained in good working order and operated as efficiently as practical. The O&M manuals shall be updated as necessary and shall include, at a minimum, the most recent general descriptions of the equipment; the normal operating conditions and procedures for the equipment; startup, shutdown, and maintenance procedures; upset conditions guidelines; and corrective action procedures.

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5. COOLING TOWER (TWO-CELL)

5.1 Process Description

A two-cell non-contact cooling tower will be used to cool the processed water. The cooling tower is equipped with drift eliminator. The water flow rate to the cooling tower is 16,800 gallons per minute.

5.2 Emission Control Description

Emissions from the cooling tower are uncontrolled.

Emission Limits

5.3 Visible Emissions Limit

Emissions from the cooling tower, or any other stack, vent, or functionally equivalent opening associated with the cooling tower, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625, unless otherwise specified.

Monitoring and Recordkeeping Requirements

5.4 Visible Emissions Monitoring

The permittee shall conduct a monthly inspection of visible emissions from the cooling during daylight hours and under normal operating conditions. The inspection shall consist of a see/no see evaluation of visible emissions. If any visible emissions are present from the cooling tower, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

Records of this information shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

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6. FUGITIVE DUST SOURCES

6.1 Process Description

Fugitive sources at the facility include the following:

- Milling operations - the debarker, sawmill, planer mill, hog, and screens
- Boiler fuel transfer points
- Woodwaste storage pile transfer, wind erosion
- Trucks driving on paved and unpaved roads
- Woodwaste trucks unloading
- Ash handling

6.2 Emission Control Description

Emissions from the above sources are controlled in accordance with IDAPA 58.01.01.650 (Rules for Control of Fugitive Dust).

Operating Requirements

6.3 Reasonable Control of Fugitive Dust Emissions

All reasonable precautions shall be taken to prevent particulate matter from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of particulate matter. Some of the reasonable precautions include, but are not limited to, the following:

- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
- Application, where practical, of asphalt, oil, water, or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.
- Installation and use, where practical, of hoods, fans, and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
- Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
- Paving of roadways and their maintenance in a clean condition, where practical.
- Prompt removal of earth or other stored material from streets, where practical.

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Monitoring and Recordkeeping Requirements**6.4 Fugitive Dust Monitoring**

- 6.4.1 The permittee shall monitor and maintain records of the frequency and method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive dust emissions.
- 6.4.2 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action taken.

6.5 Reasonable Control Measures

The permittee shall conduct a monthly facility-wide inspection of potential sources of fugitive emissions, during daylight hours and under normal operating conditions, to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken.

Records of this information shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

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7. PERMIT TO CONSTRUCT GENERAL PROVISIONS

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.
2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
 - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
 - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. The permittee shall notify DEQ, in writing, of the required information for the following events within 5 working days after occurrence:
 - Initiation of Construction - Date
 - Completion/Cessation of Construction - Date
 - Actual Production Startup - Date
 - Initial Date of Achieving Maximum Production Rate - Production Rate and Date
6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

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Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.